

# Virginia Emergency Operations Center (VEOC)

## Virginia Department of Emergency Management (VDEM)

### DROUGHT AND BURN BAN SITUATION REPORT # 25 25 July 2008, 1100 Hours

*New Information in Bold Italic Type*

#### SUMMARY

Statewide precipitation for the previous water year (1 October 2006 through 30 September 2007) was below normal. Statewide precipitation for the period from October 1, 2006 until **July 18, 2008** was below normal. ***Statewide precipitation for the period from January 1, 2008 through July 18, 2008 was in the normal range and the period July 1 through July 18 was normal to above normal in all drought evaluation regions except the Eastern Shore, York-James and the Northern Coastal Plain. This short period was dominated by a series of significant thunderstorm events. The period from June 1 through July 18 is a more accurate reflection of overall drought conditions and indicates below normal statewide precipitation for the period.*** Precipitation greater than 85% of normal is considered to be in the normal range.

#### EXECUTIVE ACTION

**EOC Activation:** The Virginia Emergency Operations Center is at Routine Operations.

**State of Emergency:** Governor Timothy M. Kaine declared a Statewide Emergency on 18 October 2007 and imposed a statewide ban on all open burning. The statewide ban on open burning was lifted by Governor Timothy M. Kaine on 15 November. The Statewide Emergency remains in effect to deal with potential or actual drought related issues.

Governor Kaine requested that the Secretary of the US Department of Agriculture declare Virginia a statewide disaster area due to reductions in farm production caused by drought and high temperatures in 2007. 93 counties and 34 independent cities received a Department of Agricultural Secretarial disaster designation in 2007 as primary natural disaster areas. York and Arlington counties and the independent cities of Alexandria, Bristol, Falls Church, Poquoson and Norton were named contiguous disaster areas.

Governor Kaine sent a letter to all localities dated 29 November 2007 advising them that the most effective water restrictions are those developed at the local level and asked that localities review their drought water conservation and contingency plans associated with public waterworks and if there was no current drought plan, one should be developed. Governor Kaine also asked localities to review their local ordinances requiring mandatory non-essential water use restrictions during declared emergencies and assure that the ordinances are consistent with the Virginia Drought Assessment and Response Plan and if the locality has not adopted such ordinances, they should consider the development and adoption of these. The potential for the Commonwealth to experience drought impacts this summer remains significant and a forum was held 2 June 2008, at the Library of Virginia to address water conservation and drought topics. DEQ – [COV Drought Response Plan](#)

**Executive Order:** [Executive Order 57 \(2007\)](#)

#### WEATHER FORECAST

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***Friday, 25 July: Mostly sunny during the day and partly cloudy overnight; 20% chance of showers and thunderstorms in the afternoon across Southwest VA; daytime high temperatures mid 80's to low 90's; overnight low temperatures upper 50's to low 60's; south-southeast winds 5-10 MPH.***

***Saturday, 26 July: Partly to mostly cloudy during the day and mostly cloudy overnight; 20-30% chance of showers and thunderstorms developing during the afternoon and evening throughout the Commonwealth; daytime high temperatures mid 80's to low 90's; overnight low temperatures mid 60's to low 70's; south-southeast winds 5-15 MPH.***

### **OPERATIONS SECTION**

**ESF 1 – Transportation:** Temporary waivers of registration and license requirements for carriers transporting emergency supplies of hay or animal feed expired on June 15, 2008

**ESF 3 – Public Works & Engineering:** Virginia Department of Health has not reported any impacts to public water supplies that have compromised their ability to provide the needs of their customers. **25 systems remain on water conservation measures; 4 remain on mandatory water conservation and 21 remain on voluntary water conservation requirements.**

Waterworks are encouraged to develop water conservation and contingency plans and local governments are encouraged to adopt local water conservation ordinances. [DEQ Water Conservation Tips](#)

**ESF 4 – Firefighting:** *The Department of Forestry reports that summertime wildfire activity continues at slightly elevated levels when compared to what would be considered normal for Virginia. Over the last month the Department of Forestry has responded to an average of roughly 3-5 wildfires daily which have burned about 7-8 acres on a daily basis. The leading cause of wildfire continues to be human carelessness, although there has been an upturn in lightning-caused fires related to the very dry conditions. Observed fire behavior over the last few weeks indicates that the rates of spread and level of fire intensity is much greater than would normally be expected during this time of the year. The low overall fuel moisture conditions make suppression operations more difficult and lead to increased long term monitoring, which can place a drain on firefighter resources. This has not been a significant problem up to this point, however significant resource problems can develop if drought conditions persist or increase over time. Since July 1, 2008, the VDOF has responded to 95 wildfires which have burned 426 acres. The large fire in the Dismal Swamp, which is now at 4664 acres, is estimated to be 95% contained. The fire is a ground-based fire, burning the dry organic oils of the refuge as a result of the low water table. The incident is completely on the federal lands of the National Wildlife Refuge and is being managed by the US Fish and Wildlife Service. The VDOF currently has 29 personnel on voluntary assignment, assisting with this incident. The Air Division of the Department of Environmental Quality reports that the Dismal Swamp fire, in combination with another similar but much larger fire in Hyde County North Carolina have the potential to adversely impact air quality in broad areas of the Commonwealth for the coming weeks or months. Since January 1, 2008, 1109 wildfires burned 25,153 acres, and damaged or destroyed 15 homes and 45 other structures. These numbers are well above 5 and 10 year averages for the period. The most intense single day of wildfire activity in the preceding 70 years occurred on February 10, 2008. During this event wildfires driven by unusually high winds were reported in 62 localities across the Commonwealth. There were 357 reported fires that burned almost 14,000 acres, and damaged or destroyed 9 homes, 19 other structures and 7 vehicles. [VDOF Fire Summation Report 23 July 08](#)*

*The Department of Forestry also reports that drought stresses in the Commonwealth's forests will likely lead to increasing problems with pest related outbreaks as opportunistic forest pests take advantage of the already stressed trees. Gypsy moths are a forest pest that impacts the foliage of deciduous trees. There are several*

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*developing major local outbreaks of gypsy moth activity in scattered communities through the western mountains of the Commonwealth. This activity is expected to continue over the next two months causing significant defoliation on a local level. The Southern Pine Beetle, a fatal pest of some conifers, is expected to remain active through the summer in isolated areas. The Department of Forestry will continue to monitor these situations and will respond with local landowners as appropriate.*

**ESF 5 – Emergency Management:** VDEM posting event related items to WebEOC under event titled “WebEOC, 2007-10 Drought and Burn Ban”; Participating as member of the Drought Monitoring Task Force; assessing the impact across the Commonwealth; limited exemption of hours worked for hay and feed carriers expired 15 June 2008. VDEM Operations Director, Harry Colestock, and VDEM Recovery and Mitigation Director, George Roarty, attended a North Carolina Emergency Management Forum in Asheville, North Carolina, that discussed the drought in the Southeastern US. Points discussed for North Carolina were:

- Description of a tiered system to identify water systems vulnerability to drought and a group of functional state task forces to address specific drought issues
- State actions included water basin meetings, tracking of public water system status and promotion of conservation (especially industries and big users).
  - Governor told the state's 30 most vulnerable communities that they need to take actions now to ensure adequate water during the potential summer drought
  - Governor directed his Dept of Natural Resources to quickly identify the funding needed to make sure undue amounts of water are not being lost to leaks and other structural problems
  - Governor also requested that public water systems adopt conservation-based rate structures to encourage both residential and commercial customers to save water
- Virginia's plans and current efforts were discussed and included background of recent droughts, development of the Virginia Drought Assessment and Response Plan, current drought impacts, Governor's Emergency Declaration, resources in readiness, water system problems exacerbated by drought and potential funding and other resources to mitigate the impacts of the drought situation.

**ESF 11 – Agriculture and Natural Resources:** Virginia Department of Agriculture and Consumer Services (VDACS) reports that according to the USDA Crop Weather Report ***released on July 15, 2008, 71% of topsoil moisture ranged from adequate to surplus. The recent rain and warm temperatures contributed to the good progress made in corn silking. Despite the good weather, some of the Commonwealth's corn was showing poor stands from the earlier effects of the cool and wet spring. Some corn producers feel that with continual rains the corn crop will be favorable. The winter wheat harvest is almost complete, as well as the planting of double crop soybeans. Hay and pasture conditions improved due to the precipitation. Farmers anticipate another cutting of hay. However, in some parts of the State, the hay and pasture fields are still suffering from the lack of water. In some cases, farmers are feeding livestock hay to compensate for poor pasture growth. VDACS reported that Virginia's Nursery and Landscape Industry reports that the recent rains have failed to significantly replace needed soil moisture. Many plants are still suffering from the dry conditions they experienced last year. Nurserymen have had increased returns of plants sold last year that succumbed to the excessive level of stress caused by the lack of moisture. Replacement of guaranteed plants by the nursery has cut into this spring's profits. Nurserymen and landscapers are concerned that recent wet, humid conditions are causing increased fungal disease impacts on already stressed and root damaged plants. If significant soil moisture replacement does not occur and severe drought conditions return again during the 2008 growing season, Virginia's nursery and landscape industries will have a difficult time maintaining healthy plant material and viable businesses.*** As a result of the hay shortages caused by the drought, the Virginia Tobacco Indemnification and Community Revitalization Commission has allocated \$500,000.00 to livestock producers in the Southwest Virginia counties of Bland, Buchanan, Carroll, Dickenson, Grayson, Lee, Scott, Smyth, Tazewell, Washington, Wise, and Wythe. All Virginia

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localities have access to federal drought disaster assistance. [VDACS Drought Related Information](#); [VDACS Hay Clearing House](#)

Virginia Department of Game and Inland Fisheries (DGIF) reports no agency operations currently impacted by drought or low water conditions and that boat ramps are all open with the exception of those closed for renovation or repairs. ***Although water flows are currently good at DGIF hatcheries, those in southwest Virginia are starting to experience lower flows into the facilities. The intensity of drought impacts has remained relatively stable during the last month. While streamflows in many areas of the Commonwealth reacted very positively to the precipitation events of the first two weeks of July, the lower than normal ground water levels, especially in the western portions of the Commonwealth, will result in very rapid decreases in streamflows without additional precipitation. These below normal streamflows raise concerns regarding future reservoir conditions, especially in the western half of the Commonwealth. It should also be noted that the areas that are currently experiencing drought conditions in western Virginia are the same areas that experienced the greatest agricultural drought impacts last year.*** It is important to remember that localized drought impacts, particularly agricultural drought impacts, are a normal occurrence in an “average” Virginia summer.

Virginia Department of Environmental Quality chairs the Virginia Drought Monitoring Task Force and reports ***the latest NOAA drought monitor indicates stable drought conditions in the Commonwealth during the last month. The western and southern portions of the Commonwealth continue to experience below normal moisture conditions to moderate drought conditions. The NOAA seasonal drought outlook through October 2008 indicates that drought conditions are likely to improve in all areas of Virginia currently experiencing drought.***

***While drought monitoring ground water levels data is scarce, ground water levels are generally in the lower range of expected water levels in areas north of Route 64 and are generally lower than normal in the area south of Route 64. Ground water levels appear to also decline to the west in the area that is experiencing lower than normal levels. Twelve dedicated drought monitoring wells are at levels indicative of normal ground water levels, six are at levels indicative of moderate hydrologic drought (10th to 24th percentiles), and two are at levels indicative of severe hydrologic drought conditions (< 10th percentile).***

***Levels of most large reservoirs have declined during the past month but most levels are in the range of expected mid-summer conditions. Smith Mountain Lake is 1.3 feet below full and falling slowly. Stakeholders have held four conference calls to consider release reductions; no action has yet been taken. Carvins Cove and Spring Hollow Reservoirs, the water supply for much of the Roanoke area, are at 82 and 80 per cent of useable storage capacity, respectively, which is adequate for this time of year. Philpott Lake has fallen 2.5 feet in the past month and is now 3.5 feet below the guide curve. The lake has a small drainage area and is used to make hydroelectric energy. Inflows are only 68% of the median inflow for July and even if the Corps of Engineers makes only the minimal amount of hydroelectric energy this lake will probably continue to fall significantly below the guide curve. Kerr Reservoir has fallen 0.75 feet so far this month and at 299 feet above sea level is only 0.5 feet below guide curve. The project is making the minimum amount of energy necessary to meet its contractual obligations, so releases are reduced and the project is falling slowly. The project will release extra water during the week of July 21 while conducting tests on a turbine. Lake Anna remains full and is currently only releasing water through its small hydroelectric turbine. The Lake Moomaw project on the Jackson River is 77% full, having fallen 16% in the past month. The project is releasing 180 cfs more than inflow into the reservoir. This low flow augmentation currently accounts for 13% of the flow of the James River at Richmond. The often vulnerable Rivanna Water and Sewer Authority system is 96% full.*** [US Drought Monitor - VA](#): [US](#)

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[Seasonal Drought Outlook: USGS Water Watch-Drought; Drought Monitoring Task Force Report 21 July 2008](#)

*US Geological Survey reports that stream gages in the northern portion of the State as well as the Valley and Ridge Physiographic Province (north of I-64 and west of I-81) are recording flow in the normal range for statistics based on historic July flows. Precipitation from thunderstorms associated with frontal passages in the northern half of the State has kept streamflows in the normal to above normal range for most of the month. Streamflows in this area are receding at normal rates indicating that groundwater storage is at normal levels. Stream gages in the rest of the State are recording flows in the below normal and well below normal ranges. Streamflows are statistically lowest in the central James, upper Roanoke, Kanawha, and eastern Tennessee River Basins and graphs of current stream flow conditions plotted over flow-duration statistics show flow recessions that are steeper than normal at gages in these basins. The rapid recessions of stream flow indicate that ground-water storage in these areas is low. Precipitation from thunderstorms in these areas has been scattered. Ground water wells in the southern half of the State generally show levels well below normal while wells in the northern half of the State generally show levels in the normal range. Observations of ground-water levels are consistent with current surface-water conditions. Shenandoah County cautioned its citizens to conserve well water since very little refill has occurred over the winter months.*

**ESF 15 – External Affairs:** Public Affairs Officers from VDEM, Department of Environmental Quality, Department of Forestry and Department of Health and representatives from VDH Office of Drinking Water developed and presented a comprehensive state communication plan to the Drought Monitoring Task Force and are incorporating recommendations into the plan, prior to submission for final approval.

### PLANNING SECTION

**Situation/Documentation Unit:** Monitoring situation and issuing monthly situation reports. **Next Situation Report will be issued Thursday, 28 August 2008.**

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